WEST Search History

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DATE: Wednesday, November 01, 2006

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ	
☐	L3	(isophorone or phorenol or 4s-4-hydroxy-2,6,6-trimethyl-2-cyclohexene-1-one) same L2	3
☐	L2	(ketoisophorone or (2,6,6-trimethyl-2-cyclohexene-1,4-dione)) same L1	6
☐	L1	(levodione adj reductase)	18

END OF SEARCH HISTORY

STN SEARCH #10/519,969 11/01/2006
=> index bioscience medicine

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 13:34:19 ON 01 NOV 2006

71 FILES IN THE FILE LIST IN STNINDEX

=> S (levodione(w)reductase)
4 FILE BIOENG
9 FILE BIOSIS
7 FILE BIOTECHABS
7 FILE BIOTECHDS
3 FILE BIOTECHNO
2 FILE CABA
8 FILE CAPLUS
31 FILE DGENE
4 FILE EMBASE
4 FILE ESBIOBASE
3 FILE FROSTI
27 FILE GENBANK
7 FILE IFIPAT
1 FILE JICST-EPLUS
41 FILES SEARCHED...
5 FILE LIFESCI
5 FILE MEDLINE
3 FILE PASCAL
11 FILE SCISEARCH
1 FILE TOXCENTER
6 FILE USPATFULL
2 FILE USPAT2
4 FILE WPIDS
4 FILE WPINDEX

23 FILES HAVE ONE OR MORE ANSWERS, 71 FILES SEARCHED IN STNINDEX

L1 QUE (LEVODIONE(W) REDUCTASE)

=> d rank
F1 31 DGENE
F2 27 GENBANK
F3 11 SCISEARCH
F4 9 BIOSIS
F5 8 CAPLUS
F6 7 BIOTECHABS
F7 7 BIOTECHDS
F8 7 IFIPAT
F9 6 USPATFULL
F10 5 LIFESCI
F11 5 MEDLINE
F12 4 BIOENG
F13 4 EMBASE
F14 4 ESBIOBASE
F15 4 WPIDS
F16 4 WPINDEX
F17 3 BIOTECHNO
F18 3 FROSTI
F19 3 PASCAL
F20 2 CABA
F21 2 USPAT2
F22 1 JICST-EPLUS
F23 1 TOXCENTER

=> file f3-f15

FILE 'SCISEARCH' ENTERED AT 13:36:40 ON 01 NOV 2006

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=> S L1
L2 74 L1

=> S (ketoisophorone or 2,6,6-trimethyl-2-cyclohexene-1,4-dione) (s) L2
9 FILES SEARCHED...
L3 11 (KETOISOPHORONE OR 2,6,6-TRIMETHYL-2-CYCLOHEXENE-1,4-DIONE) (S)
L2

=> S (isophorone or phorenol or 4s-4-hydroxy-2,6,6-trimethyl-2-cyclohexene-1-one) (s) L3
L4 6 (ISOPHORONE OR PHORENOL OR 4S-4-HYDROXY-2,6,6-TRIMETHYL-2-CYCLOH
EXENE-1-ONE) (S) L3

=> dup rem L3
PROCESSING COMPLETED FOR L3
L5 5 DUP REM L3 (6 DUPLICATES REMOVED)

=> dup rem l4
PROCESSING COMPLETED FOR L4
L6 3 DUP REM L4 (3 DUPLICATES REMOVED)

=> d ibib abs L5 1-5

L5 ANSWER 1 OF 5 IFIPAT COPYRIGHT 2006 IFI on STN DUPLICATE 1
AN 11172553 IFIPAT;IFIUDB;IFICDB <<LOGINID::20061101>>
TITLE: PROCESS FOR ACTINOL PRODUCTION FROM KETOISOPHORONE
INVENTOR(S): Hoshino; Tatsuo, Kanagawa, JP
Setoguchi; Yutaka, Kanagawa, JP
Shimizu; Sakayu, Kyoto, JP
Tabata; Kazuyuki, Kanagawa, JP
PATENT ASSIGNEE(S): Unassigned
AGENT: Stephen M Haracz;Bryan Cave, 1290 Avenue of the
Americas, New York, NY, 10104, US

	NUMBER	PK	DATE
PATENT INFORMATION:	US 2006121587	A1	20060608
APPLICATION INFORMATION:	US 2003-528843		20030916
	WO 2003-EP10295		20030916
			20060123 PCT 371 date
			20060123 PCT 102(e) date

	NUMBER	DATE
PRIORITY APPLN. INFO.:	EP 2002-216057	20020927
FAMILY INFORMATION:	US 2006121587	20060608

DOCUMENT TYPE: Utility
Patent Application - First Publication
FILE SEGMENT: CHEMICAL
APPLICATION

NUMBER OF CLAIMS: 11

AB Disclosed is a process for producing actinol from ***ketoisophorone*** which comprises contacting ***ketoisophorone*** with a recombinant microorganism or cell-free extract thereof in a reaction mixture, wherein said recombinant microorganism is obtainable by transforming a host microorganism, e.g. selected from the group consisting of microorganisms of the genera Saccharomyces, Zygosaccharomyces, and Candida, such as commercially available baker's yeast, Saccharomyces cerevisiae ATCC7754, Saccharomyces rouxii (Zygosaccharomyces rouxii) HUT7191 (IFO 0494), Saccharomyces delbrueckii HUIT7116 (Saccharomyces unisporus IFO 0298), Saccharomyces delbrueckii (Torulaspora delbrueckii) HUT7102, Saccharomyces willianus HU7106, Zygosaccharomyces bailii ATCC11486, Candida tropicalis IFO 1403, and a mutant thereof, which is capable of reducing ***ketoisophorone*** to levodione with a ***levodione*** ***reductase*** gene, e.g. a ***levodione*** ***reductase*** gene derived from a microorganism belonging to the genus Corynebacterium, such as C. aquaticum AKU611 (FERM BP6448) or a mutant thereof, and isolating the produced actinol from the reaction mixture.

CLMN 11

L5 ANSWER 2 OF 5 IFIPAT COPYRIGHT 2006 IFI on STN DUPLICATE 2
AN 11172552 IFIPAT;IFIUDB;IFICDB <<LOGINID::20061101>>
TITLE: PROCESS FOR PRODUCING PHORENOL
INVENTOR(S): Hoshino; Tatsuo, 2-18-14 FUETA, KAMAKURA-SHI, KANAGAWA, 2480027, JP
Setoguchi; Yutaka, Kanagawa-ken, JP
Shimizu; Sakayu, Kyoto-fu, JP
Tabata; Kazuyuki, Kanagawa-ken, JP
PATENT ASSIGNEE(S): Unassigned
AGENT: Stephen M Haracz;Bryan Cave, 1290 Avenue of the Americas, New York, NY, 10104, US

	NUMBER	PK	DATE
PATENT INFORMATION:	US 2006121586	A1	20060608
APPLICATION INFORMATION:	US 2003-519969		20030509
	WO 2003-EP4893		20030509
			20050930 PCT 371 date
			20050930 PCT 102(e) date

	NUMBER	DATE
PRIORITY APPLN. INFO.:	EP 2002-147849	20020704
FAMILY INFORMATION:	US 2006121586	20060608

DOCUMENT TYPE: Utility
Patent Application - First Publication
FILE SEGMENT: CHEMICAL
APPLICATION

NUMBER OF CLAIMS: 21

AB The present invention relates to processes for producing (4S)-4hydroxy-2,6,6-trimethyl-2-cyclohexene-1-one (phorenol) from

2 , ***6*** , ***6*** - ***trimethyl*** - ***2*** - ***cyclohexene*** - ***1*** , ***4*** - ***dione*** (***ketoisophorone***). The present invention also relates to products useful for producing phorenol from ***ketoisophorone*** , including microorganisms, cellfree extracts of such microorganisms, recombinant microorganisms, cell-free extracts of such recombinant microorganisms, and enzymes (e.g., ***levodione*** ***reductase***). Processes for producing phorenol from ***ketoisophorone*** using such products are also provided.
CLMN 21

L5 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2004:287922 CAPLUS <<LOGINID::20061101>>
DOCUMENT NUMBER: 140:302437
TITLE: One step process for the reduction of ketoisophorone to actinol by recombinant Saccharomyces cerevisiae
INVENTOR(S): Hoshino, Tatsuo; Setoguchi, Yutaka
PATENT ASSIGNEE(S): DSM Ip Assets B.V., Neth.
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004029263	A2	20040408	WO 2003-EP10295	20030916
WO 2004029263	A3	20040527		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003273889	A1	20040419	AU 2003-273889	20030916
EP 1543134	A2	20050622	EP 2003-757854	20030916
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006500047	T2	20060105	JP 2004-538915	20030916
US 2006121587	A1	20060608	US 2006-528843	20060123

PRIORITY APPLN. INFO.: EP 2002-21605 A 20020927
WO 2003-EP10295 W 20030916
OTHER SOURCE(S): CASREACT 140:302437
AB A process is provided for producing actinol from ***ketoisophorone*** which comprises contacting ***ketoisophorone*** with whole cells or a cell free ext. of A recombinant microorganism that possesses a ***ketoisophorone*** reductase and expresses a cloned ***levodione*** ***reductase*** . Suitable recombinant hosts may be selected from the group consisting of microorganisms of the genera Saccharomyces, Zygosaccharomyces, and Candida. Specifically, com. available baker's yeast, Saccharomyces cerevisiae ATCC 7754, Saccharomyces rouxii (Zygosaccharomyces rouxii) HUT7191 (IFO 0494), Saccharomyces delbrueckii HUT 7116 (Saccharomyces unisporus IFO 0298), Saccharomyces delbrueckii (Torulaspora delbrueckii) HUT 7102, Saccharomyces willianus HUT 7106, Zygosaccharomyces bailii ATCC 11486, Candida tropicalis IFO 1403, and a mutants thereof are suitable hosts. Addnl. claimed is a levodione reductase gene derived from a microorganism belonging to the genus Corynebacterium, such as C. aquaticum AKU 611 (FERM BP-6448) or a mutant thereof. Thus, when cells of Saccharomyces cerevisiae strain INVSci are incubated with 5 g/L ketoisophorone for 17 h, 2.8 g/L levodione is produced along with a trace of (4R,6R)-actinol and 0.65 g/L (4S,6R)-actinol. After the same Saccharomyces cerevisiae strain had been transformed with a ***levodione*** ***reductase*** gene from Corynebacterium aquaticum AKU 611, 5 g/L ***ketoisophorone*** was reduced to 1.72 g/L levodione, 1.60 g/L (4R,6R)-actinol, 0.48 g/L

(4S,6R)-actinol and 0.27 g/L S-phorenol ((4S)-4-hydroxy-2,6,6-trimethyl-2-Cyclohexen-1-one).

L5 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2004:41655 CAPLUS <<LOGINID::20061101>>
DOCUMENT NUMBER: 140:110201
TITLE: Process for producing phorenol
INVENTOR(S): Hoshino, Tatsuo; Tabata, Kazuyuki; Setoguchi, Yutaka; Shimizu, Sakayu
PATENT ASSIGNEE(S): Dsm Ip Assets B.V., Neth.
SOURCE: PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005526	A1	20040115	WO 2003-EP4893	20030509
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2489761	AA	20040115	CA 2003-2489761	20030509
AU 2003240619	A1	20040123	AU 2003-240619	20030509
EP 1520029	A1	20050406	EP 2003-730004	20030509
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005531320	T2	20051020	JP 2004-518497	20030509
US 2006121586	A1	20060608	US 2005-519969	20050930

PRIORITY APPLN. INFO.: EP 2002-14784 A 20020704
WO 2003-EP4893 W 20030509
OTHER SOURCE(S): CASREACT 140:110201
AB The present invention relates to a process for producing (4S)-4-hydroxy-2,6,6-trimethyl-2-cyclohexene-1-one (phorenol) from ***2*** , ***6*** , ***6*** - ***trimethyl*** - ***2*** - ***cyclohexene*** - ***1*** , ***4*** - ***dione*** (***ketoisophorone***) comprising contacting ***ketoisophorone*** with a microorganism which is capable of producing actinol from levodione or with a cell-free ext. thereof, with a recombinant microorganism which is capable of producing actinol from levodione or with a cell-free ext. thereof, or with ***levodione*** ***reductase*** , and isolating the resulting phorenol from the reaction mixt.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 5 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-04837 BIOTECHDS <<LOGINID::20061101>>
TITLE: Production of a doubly chiral compound, (4R,6R)-4-hydroxy-2,2,6-trimethylcyclohexanone, by two-step enzymatic asymmetric reduction;
stereospecific trimethylcyclohexanone preparation by enzyme-catalyzed reaction
AUTHOR: WADA M; YOSHIZUMI A; NODA Y; KATAOKA M; SHIMIZU S; TAKAGI H; NAKAMORI S
CORPORATE SOURCE: Fukui Prefectural Univ; Kyoto Univ
LOCATION: Wada M, Fukui Prefectural Univ, Dept Biosci, 4-1-1 Kenjyojima, Matsuoka, Fukui 9101195, Japan
SOURCE: APPLIED AND ENVIRONMENTAL MICROBIOLOGY; (2003) 69, 2, 933-937
ISSN: 0099-2240
DOCUMENT TYPE: Journal
LANGUAGE: English
AN 2003-04837 BIOTECHDS <<LOGINID::20061101>>

AB AUTHOR ABSTRACT - A practical enzymatic synthesis of a doubly chiral key compound, (4R,6R)-4-hydroxy-2,2,6-trimethylcyclohexanone, starting from the readily available 2,6,6-trimethyl-2-cyclohexen-1,4-dione is described. Chirality is first introduced at the C-6 position by a stereoselective enzymatic hydrogenation ofthe double bond using old yellow enzyme 2 of Saccharomyces cerevisiae, expressed in Escherichia coli, as a biocatalyst. Thereafter, the carbonyl groupat the C-4 position is reduced selectively and stereospecifically by levorlione reductase of Corynebacterium aquaticum M-13, expressed in E. coli, tothe corresponding alcohol. Commercially available glucose dehydrogenase was also used for cofactor regeneration in both steps. Using this two-step enzymatic asymmetric reduction system, 9.5 mg of (4R,6R)-4-hydroxy-2,2,6-trimethylcyclohexanone/ml was produced almost stoichiometrically, with 94% enantiomeric excess in the presence of glucose, NAD(+), and glucose dehydrogenase. To our knowledge, this is the first report of the application of S. cerevisiae old yellow enzyme for the production of a useful compound. (5 pages)

=> d his

L1 QUE (LEVODIONE(W) REDUCTASE)

FILE 'SCISEARCH, BIOSIS, CAPLUS, BIOTECHDS, IFIPAT, USPATFULL, LIFESCI, MEDLINE, BIOENG, EMBASE, ESBIOBASE, WPIDS' ENTERED AT 13:36:40 ON 01 NOV 2006

L2 74 S L1
L3 11 S (KETOISOPHORONE OR 2,6,6-TRIMETHYL-2-CYCLOHEXENE-1,4-DIONE) (
L4 6 S (ISOPHORONE OR PHORENOL OR 4S-4-HYDROXY-2,6,6-TRIMETHYL-2-CYC
L5 5 DUP REM L3 (6 DUPLICATES REMOVED)
L6 3 DUP REM L4 (3 DUPLICATES REMOVED)

=> log y